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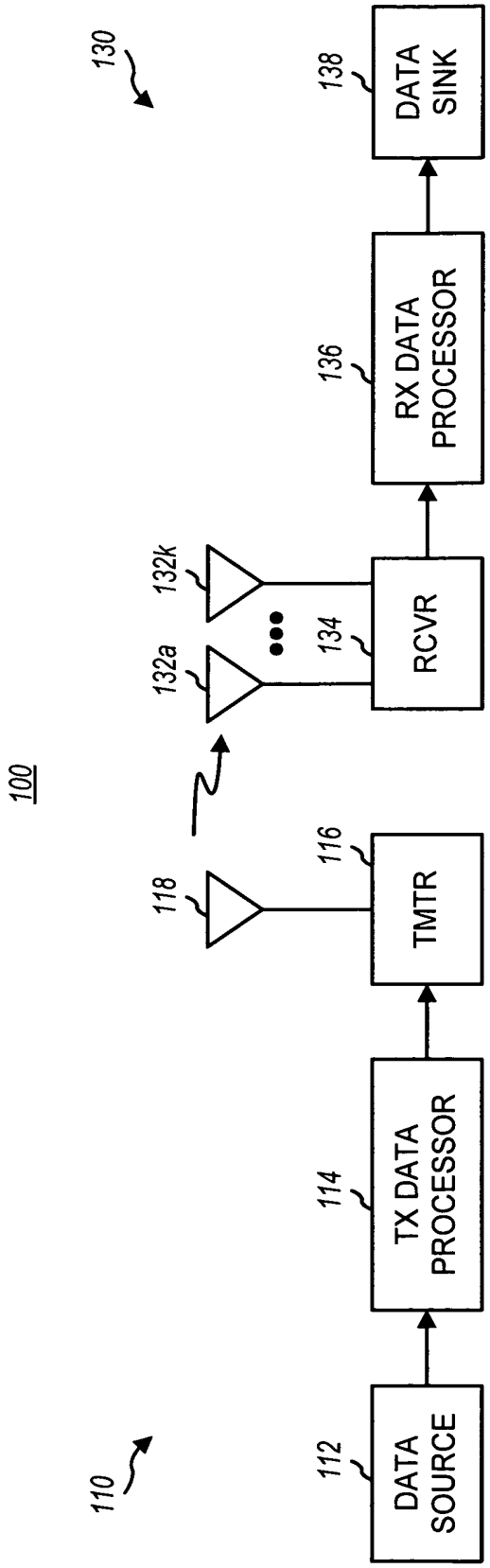


FIG. 1

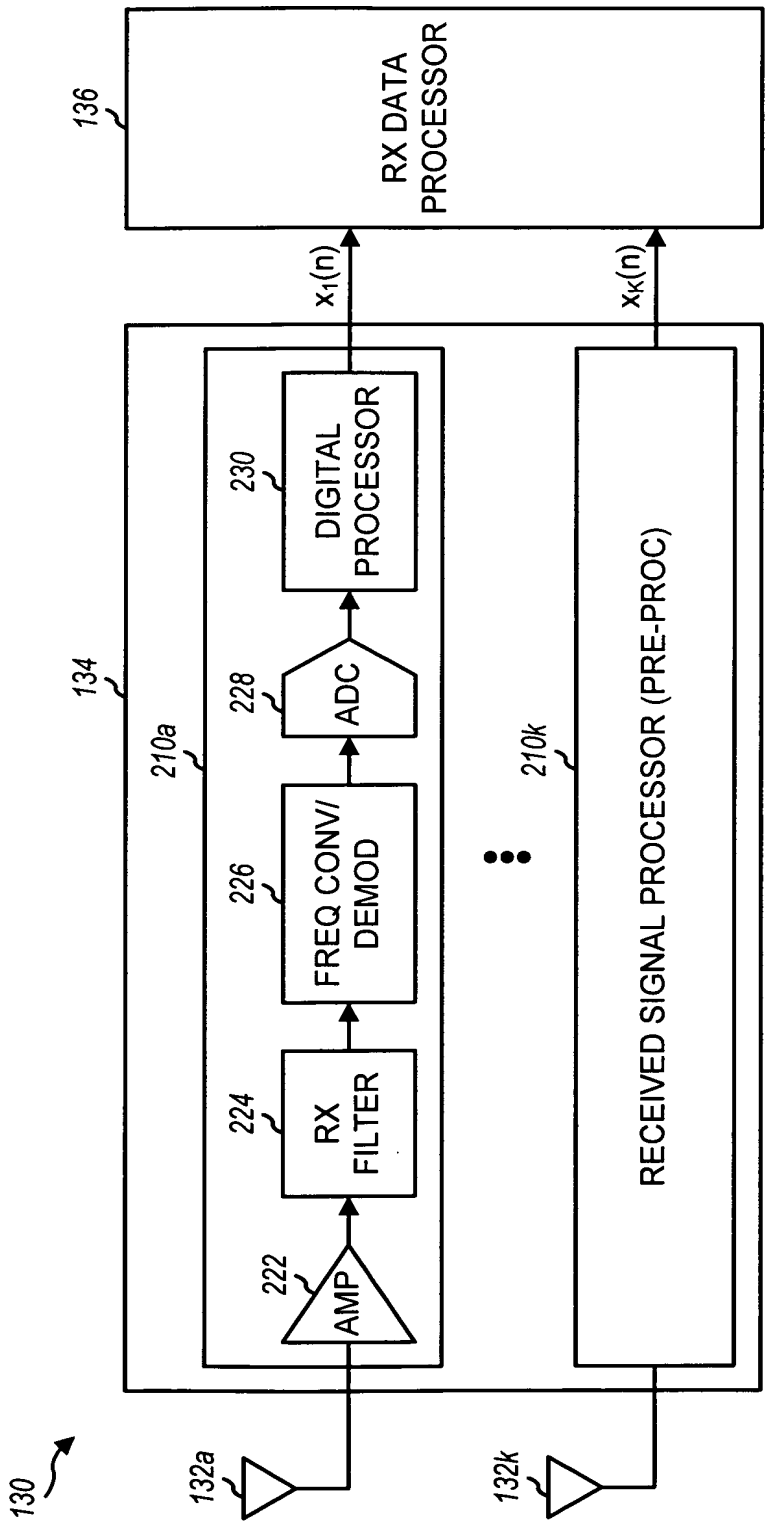
130
132a
132k
134
136
210a
210k
222
AMP
224
RX FILTER
226
FREQ CONV/ DEMOD
228
ADC
230
DIGITAL PROCESSOR
RECEIVED SIGNAL PROCESSOR (PRE-PROC)
RX DATA PROCESSOR
x1(n)
xK(n)

FIG. 2A

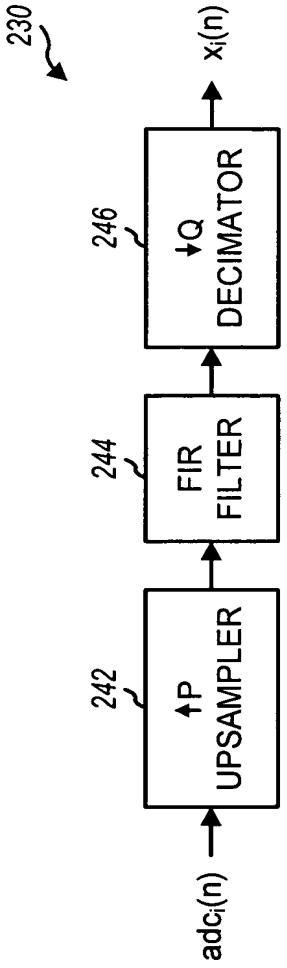
230
242
↑P UPSAMPLER
244
FIR FILTER
246
↓Q DECIMATOR
adci(n)
xi(n)

FIG. 2B

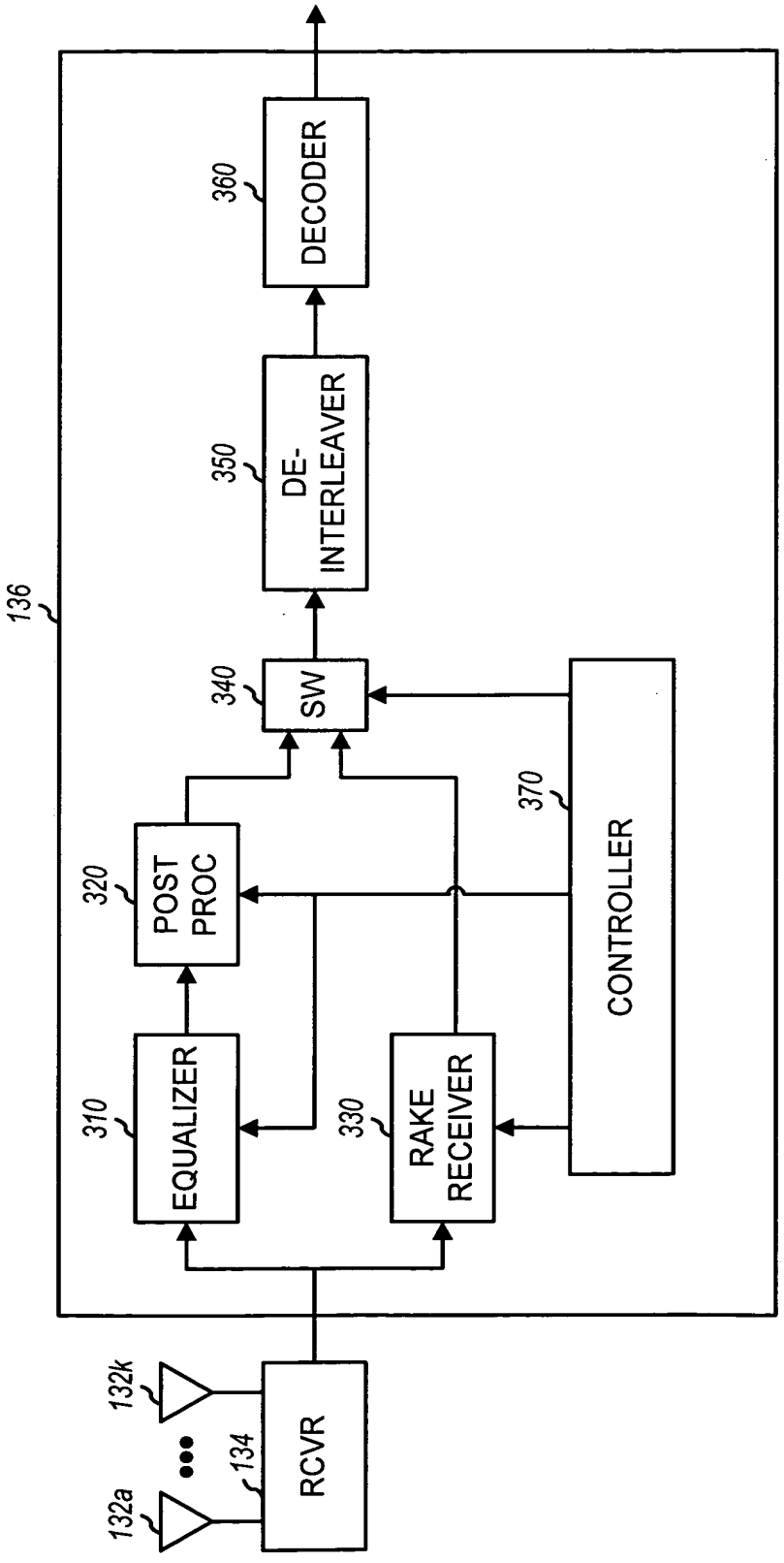
136
132a
132k
134
RCVR
310
EQUALIZER
320
POST PROC
330
RAKE RECEIVER
340
SW
350
DE-INTERLEAVER
360
DECODER
370
CONTROLLER

FIG. 3

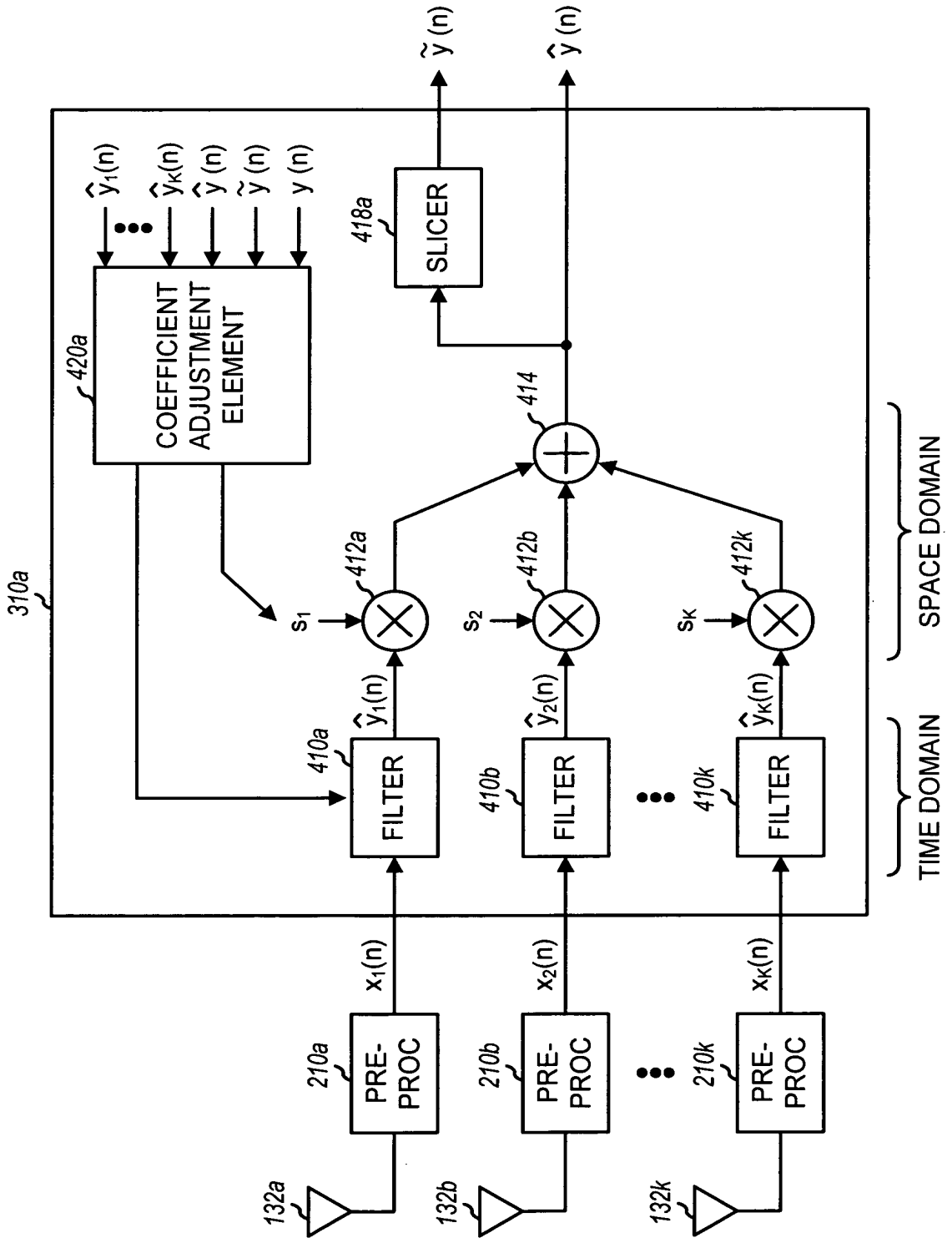
310a
132a
132b
132k
210a
210b
210k
PRE-PROC
$x_1(n)$
$x_2(n)$
$x_K(n)$
410a
410b
410k
FILTER
$\hat{y}_1(n)$
$\hat{y}_2(n)$
$\hat{y}_K(n)$
TIME DOMAIN
412a
412b
412k
$s_1$
$s_2$
$s_K$
414
SPACE DOMAIN
$\hat{y}(n)$
$\tilde{y}(n)$
418a
SLICER
420a
COEFFICIENT ADJUSTMENT ELEMENT
$\hat{y}_1(n)$
$\hat{y}_K(n)$
$\hat{y}(n)$
$\tilde{y}(n)$
$y(n)$

FIG. 4A

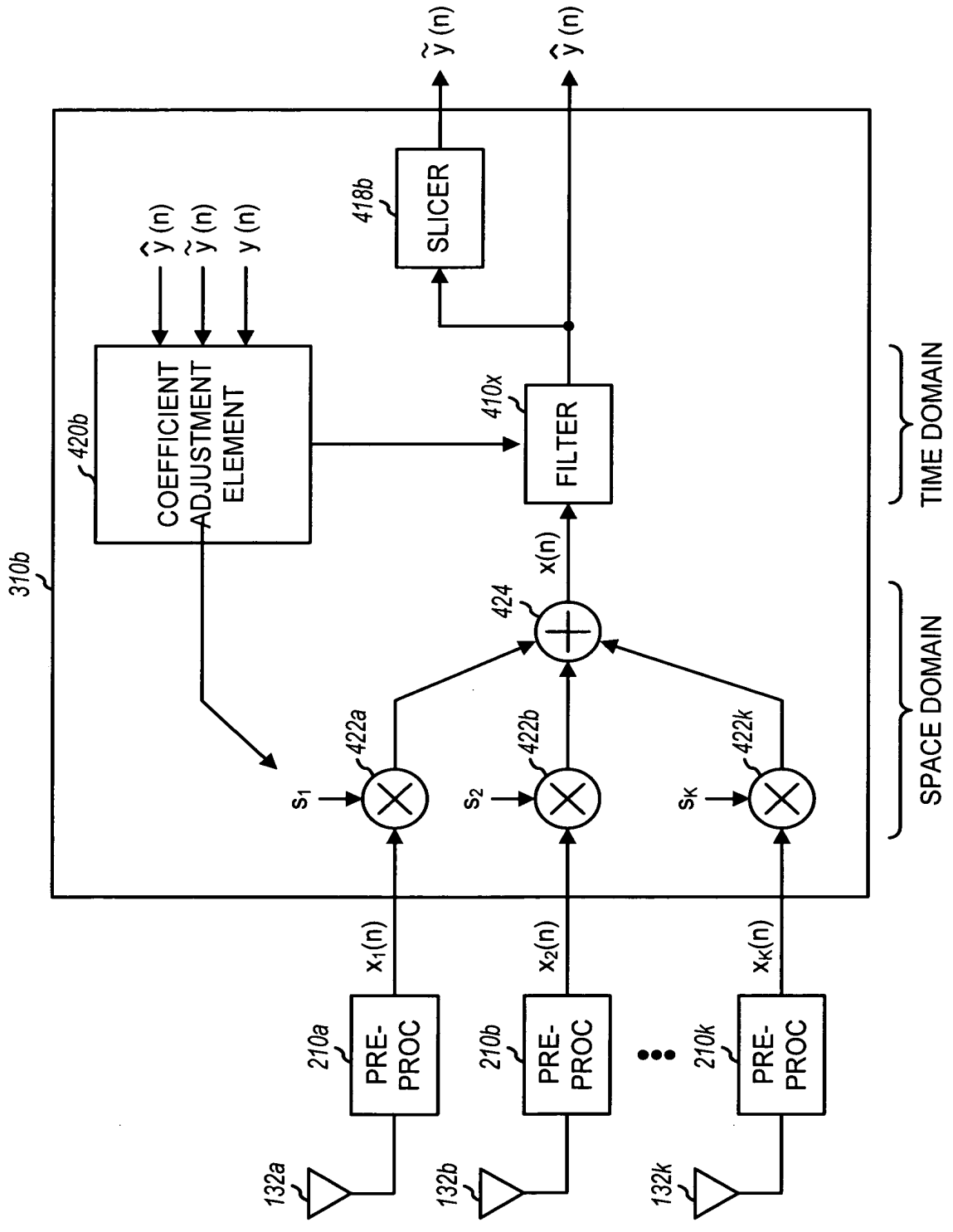
$\tilde{y}$ (n)
$\hat{y}$ (n)
418b
SLICER
$\hat{y}$ (n)
$\tilde{y}$ (n)
y (n)
420b
COEFFICIENT ADJUSTMENT ELEMENT
410x
FILTER
TIME DOMAIN
310b
424
x(n)
422a
422b
422k
$s_1$
$s_2$
$s_K$
SPACE DOMAIN
$x_1$(n)
$x_2$(n)
$x_K$(n)
210a
210b
210k
PRE-PROC
PRE-PROC
PRE-PROC
132a
132b
132k

FIG. 4B

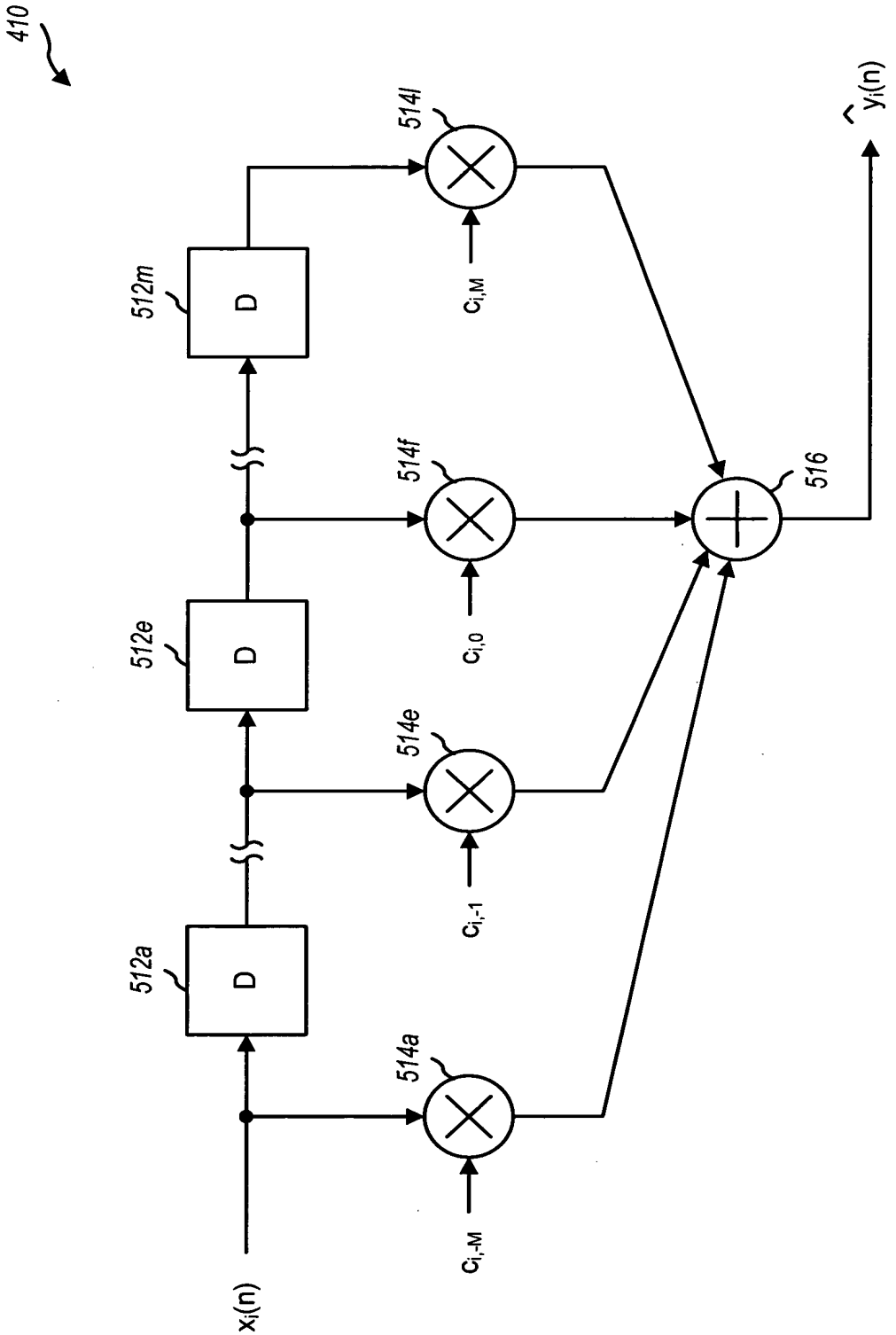
410
512a
512e
512m
D
D
D
514a
514e
514f
514l
516
$x_i(n)$
$c_{i,-M}$
$c_{i,-1}$
$c_{i,0}$
$c_{i,M}$
$\hat{y}_i(n)$

FIG. 5A

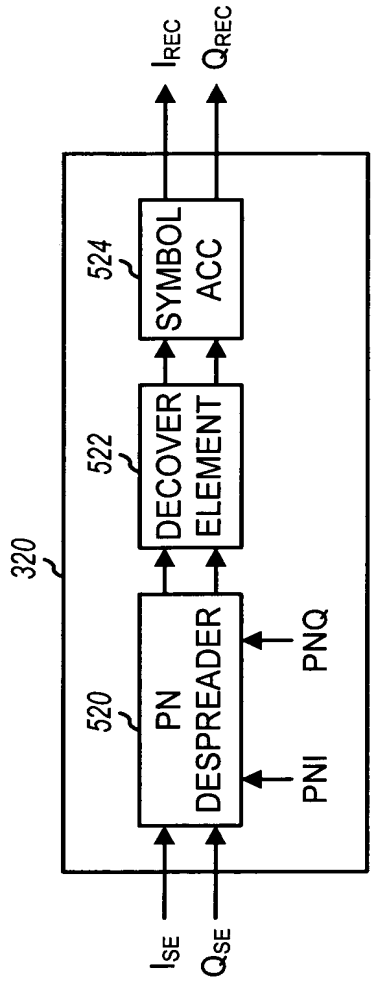
320
520
PN DESPREADER
PNI
PNQ
522
DECOVER ELEMENT
524
SYMBOL ACC
$I_{SE}$
$Q_{SE}$
$I_{REC}$
$Q_{REC}$

FIG. 5B

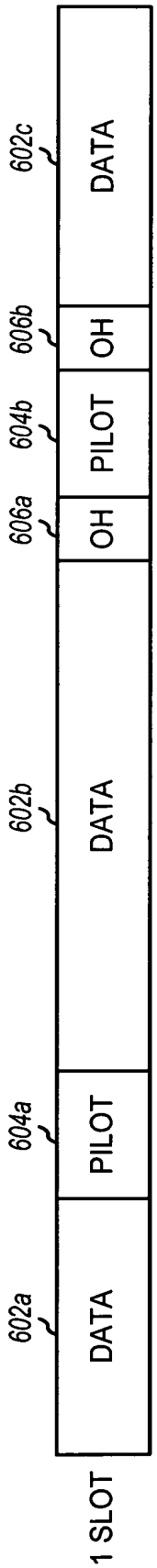
602a
DATA
604a
PILOT
602b
DATA
606a
OH
604b
PILOT
606b
OH
602c
DATA
1 SLOT

FIG. 6

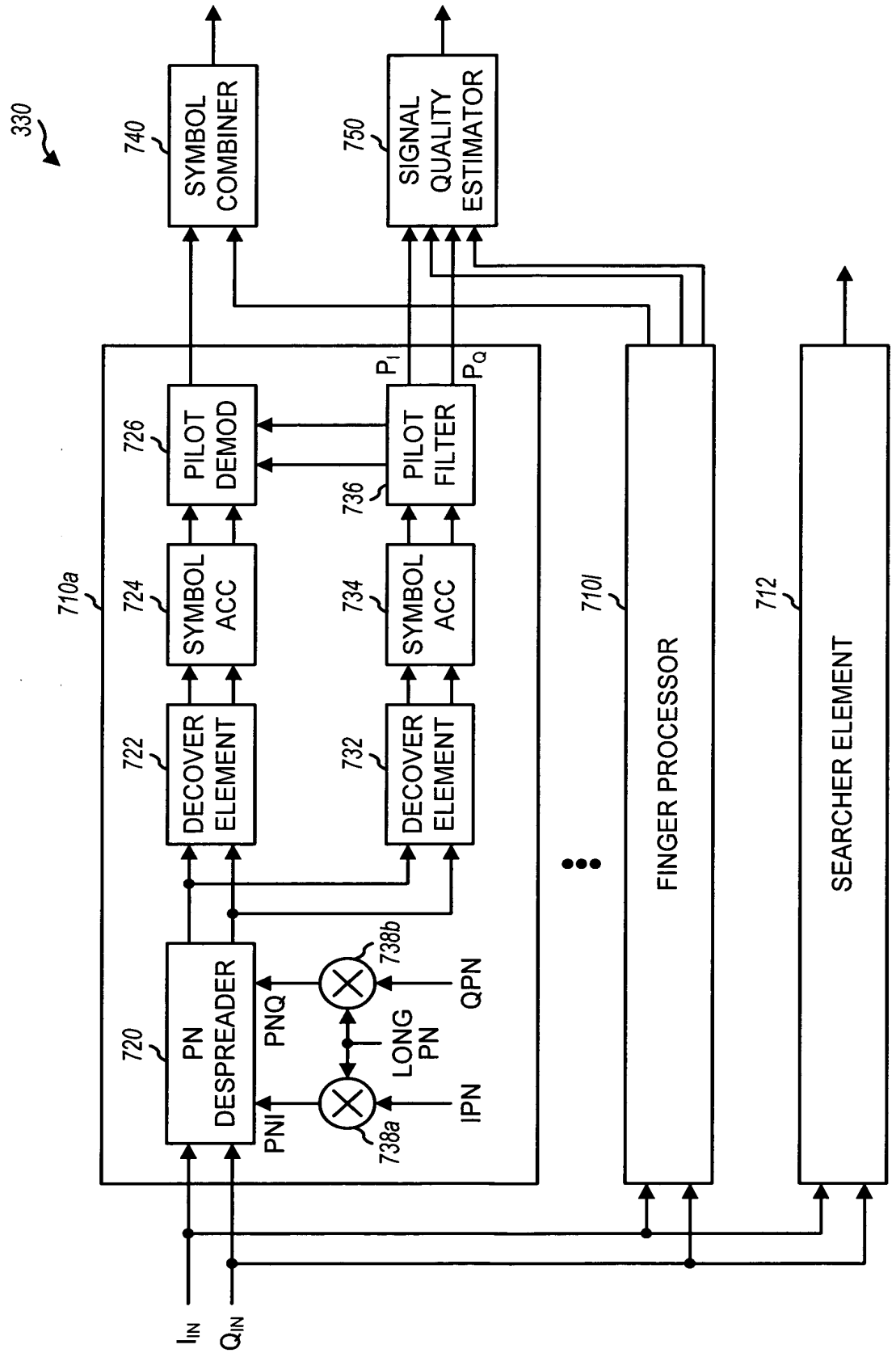
330
740
SYMBOL COMBINER
750
SIGNAL QUALITY ESTIMATOR
710a
726
PILOT DEMOD
736
PILOT FILTER
$P_I$
$P_Q$
724
SYMBOL ACC
734
SYMBOL ACC
722
DECOVER ELEMENT
732
DECOVER ELEMENT
720
PN DESPREADER
PNQ
PNI
738b
738a
LONG PN
QPN
IPN
710l
FINGER PROCESSOR
712
SEARCHER ELEMENT
$I_{IN}$
$Q_{IN}$

FIG. 7